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(FILE 'USPAT' ENTERED AT 11:00:00 ON 13 NOV 1998)

L1           35 S HYDROXYCITRIC  
L2           735 S HYDROXYCITR?  
L3           226 S HYDROXY CITR?  
L4           887 S L1 OR L2 OR L3  
L5           166 S L4 AND (OPTICAL OR SPECIFIC ROTATION)  
L6           7 S L4 AND SPECIFIC ROTATION  
L7           16534 S OPTICAL (3A) (ISOMER? OR ROTATION)  
L8           39 S L7 AND L4  
L9           0 S L8 NOT L7  
L10          1 S L7 (10A) L4

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(--)-threo-hydroxycitric acid with R(+)-.alpha.-methyl-p-nitrobenzylamine; Clark William Perry, et al., 549/318, 549 [IMAGE AVAILABLE]

US PAT NO: 3,965,121 [IMAGE AVAILABLE]

L8: 37 of 39

ABSTRACT:

Racemic organic carboxylic acids are efficiently resolved into their enantiomers with antipodes of .alpha.-methyl-p-nitrobenzylamine.

38. 3,920,752, Nov. 18, 1975, Novel gamma, delta unsaturated aldehydes; Dietmar Lamparsky, 568/448 [IMAGE AVAILABLE]

US PAT NO: 3,920,752 [IMAGE AVAILABLE]

L8: 38 of 39

ABSTRACT:

There are provided novel gamma, delta-unsaturated aldehydes of the general formula: ##SPC1##

Wherein R.sub.1 is alkyl of 1-9 carbon atoms or alkenyl of 2-9 carbon atoms, R.sub.2 and R.sub.3 are hydrogen or alkyl of 1-6 carbon atoms, R.sub.4 is hydrogen, alkyl of 1-6 carbon atoms or alkenyl of 2-6 carbon atoms, and R.sub.5 and R.sub.6 are hydrogen or methyl.

These novel compounds possess a floral or fruity aroma. There are also provided novel processes for preparing said compounds.

39. 3,901,915, Aug. 26, 1975, Optical resolution of organic carboxylic acids; Clark William Perry, et al., 548/498; 549/318, 549 [IMAGE AVAILABLE]

US PAT NO: 3,901,915 [IMAGE AVAILABLE]

L8: 39 of 39

ABSTRACT:

Racemic organic carboxylic acids are efficiently resolved into their enantiomers with antipodes of .alpha.-methyl-p-nitrobenzylamine.

salt with a hydrating reagent  
as well as the intermediate which is the sulfite addition salt of  
2,6-dimethyl-5-heptenal.

32. 4,188,310, Feb. 12, 1980, Substituted cyclic alcohols, methods of preparing and compositions containing same; Brian J. Willis, et al., 512/23; 560/118; 568/346, 350, 367, 816 [IMAGE AVAILABLE]

US PAT NO: 4,188,310 [IMAGE AVAILABLE]

L8: 32 of 39

**ABSTRACT:**

The present invention relates to novel compounds useful as fragrance materials which have the structure ##STR1## wherein the dashed line may be either a carbon-carbon single bond or a carbon-carbon double bond. The invention also provides methods of preparing these compounds from the reaction products of acetoacetic esters and 2,2,3-trimethyl-3-cyclopenten-1-acetaldehyde and fragrance compositions which include the compounds.

33. 4,066,658, Jan. 3, 1978, Resolution of D,L-dehydropyroline; Arthur Martin Felix, 548/535, 533 [IMAGE AVAILABLE]

US PAT NO: 4,066,658 [IMAGE AVAILABLE]

L8: 33 of 39

**ABSTRACT:**

D,L-3,4-dehydropyroline is resolved in high optical yield by conversion to its N-protected derivative, treatment with R(+)-alpha-methyl-p-nitrobenzylamine to form the diastereomeric salts, fractional crystallization, decomposition of the L-R salt and regeneration of the secondary amine group. The product L-3,4-dehydropyroline obtained in extremely high optical purity is useful as an inhibitor of collagen synthesis.

34. 4,052,341, Oct. 4, 1977, 3-Methyl-5-(2,2,3-trimethylcyclopent-3-en-1-yl)pentan-2-ol compound and perfume compositions; Richard E. Naipawer, et al., 512/2, 8; 549/525, 541, 545; 568/345, 379, 838 [IMAGE AVAILABLE]

US PAT NO: 4,052,341 [IMAGE AVAILABLE]

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**ABSTRACT:**

3-Methyl-5-(2,2,3-trimethylcyclopent-3-en-1-yl)pentan-2-ol possesses a strong, precious woody odor reminiscent of sandalwood oil and is especially valuable in fragrance compositions.

35. 3,988,349, Oct. 26, 1976, Salts of N-formyl-6-chlorotryptophan and .alpha.-methyl-p-nitrobenzylamine; Clark William Perry, et al., 548/496 [IMAGE AVAILABLE]

US PAT NO: 3,988,349 [IMAGE AVAILABLE]

L8: 35 of 39

**ABSTRACT:**

Racemic organic carboxylic acids are efficiently resolved into their enantiomers with antipodes of .alpha.-methyl-p-nitrobenzylamine.

36. 3,965,129, Jun. 22, 1976, Optical resolution of organic carboxylic acids; Clark William Perry, et al., 549/549, 313 [IMAGE AVAILABLE]

US PAT NO: 3,965,129 [IMAGE AVAILABLE]

L8: 36 of 39

**ABSTRACT:**

Racemic organic carboxylic acids are efficiently resolved into their enantiomers with antipodes of .alpha.-methyl-p-nitrobenzylamine.

37. 3,965,121, Jun. 22, 1976, Salts of the .gamma.-lactone of

compositions, flavoring compositions for tobacco, perfume compositions, ingredients for perfume compositions, perfumed articles and ingredients for perfumed articles by including said 6-hydroxy-2,6-dimethylheptanal therein in order to produce:

- (a) In food flavorings, sweet, green, melon-like, tropical fruit-like, seedy and raspberry aromas and/or tastes;
- (b) In perfumes, sweet, green, melony, floral and muguet-like aromas; and
- (c) In tobaccos, sweet, fruity-melon-like, peach-like, and floral aromas prior to and on smoking in the main stream and in the sidestream in smoking tobaccos and the same aroma and taste nuances in the filter.

Processes for synthesizing the 6-hydroxy-2,6-dimethylheptanal by hydrolysis of 2,6-dimethyl-5-heptenal are also described.

29. 4,281,177, Jul. 28, 1981, 6-Hydroxy-2,6-dimethylheptanal, organoleptic uses thereof and processes for preparing the same; Mark A. Sprecker, et al., 562/108; 568/27, 458, 496 [IMAGE AVAILABLE]

US PAT NO: 4,281,177 [IMAGE AVAILABLE]

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**ABSTRACT:**

Described is the compound 6-hydroxy-2,6-dimethylheptanal and methods for preparing foodstuffs, flavoring compositions for foodstuffs, tobacco compositions, flavoring compositions for tobacco, perfume compositions, ingredients for perfume compositions, perfumed articles and ingredients for perfumed articles by including said 6-hydroxy-2,6-dimethylheptanal therein in order to produce:

- (a) In food flavorings, sweet, green, melon-like, tropical fruit-like, seedy and raspberry aromas and/or tastes;
- (b) In perfumes, sweet, green, melony, floral and muguet-like aromas; and
- (c) In tobaccos, sweet, fruity-melon-like, peach-like, and floral aromas prior to and on smoking in the main stream and in the sidestream in smoking tobaccos and the same aroma and taste nuances in the filter.

Processes for synthesizing the 6-hydroxy-2,6-dimethylheptanal by hydrolysis of 2,6-dimethyl-5-heptenal are also described.

30. 4,258,727, Mar. 31, 1981, Use for augmenting or enhancing the flavor or aroma of smoking tobacco of 6-hydroxy-2,6-dimethyl-heptanal; Mark A. Sprecker, et al., 131/276 [IMAGE AVAILABLE]

US PAT NO: 4,258,727 [IMAGE AVAILABLE]

L8: 30 of 39

**ABSTRACT:**

Described is the use for augmenting or enhancing the aroma or taste of smoking tobacco by adding thereto 6-hydroxy-2,6-dimethyl-heptanal.

31. 4,242,281, Dec. 30, 1980, Process for preparing 6-hydroxy-2,6-dimethylheptanal and intermediates thereof; Mark A. Sprecker, et al., 568/458, 496 [IMAGE AVAILABLE]

US PAT NO: 4,242,281 [IMAGE AVAILABLE]

L8: 31 of 39

**ABSTRACT:**

Described is the compound 6-hydroxy-2,6-dimethylheptanal useful in augmenting or enhancing the aroma or taste of foodstuffs, flavoring compositions for foodstuffs, tobacco compositions, flavoring compositions for tobacco, perfume compositions, ingredients for perfume compositions, perfumed articles and ingredients for perfumed articles as well as a process for preparing 6-hydroxy-2,6-dimethylheptanal comprising the steps of:

- (i) forming a sulfite addition salt of 2,6-dimethyl-5-heptenal by mixing an alkali metal sulfite in boric acid with 2,6-dimethyl-5-heptenal and
- (ii) hydrating the thus formed 2,6-dimethyl-5-heptenal sulfite addition

**ABSTRACT:**

The present invention relates to chlorocitric acids of the formula ##STR1## and stereoisomers, optical antipodes and pharmaceutically acceptable salts thereof, to methods of preparation thereof, including intermediates involved therein, and to their use as anorectic agents for the treatment of obesity in mammals.

26. 4,311,617, Jan. 19, 1982, Perfumery compositions; Hifzur R. Ansari, et al., 512/27, 25, 26; 568/496, 678 [IMAGE AVAILABLE]

**ABSTRACT:**

Compounds having the general formula ##STR1## wherein R.sub.1 represents a hydrogen atom or an alkyl group having from 1 to 4 carbon atoms and Z represents a formyl group --CHO or a hydroxyl group or a group OR.sub.1 wherein R.sub.2 represents an acyl group having from 1 to 6 carbon atoms, have been discovered to possess attractive fruity-floral odors. They are useful as ingredients of compounded perfumery compositions.

27. 4,310,681, Jan. 12, 1982, Carboalkoxy alkyl norbornane derivatives and process for preparing same; Philip T. Klemarczyk, et al., 560/120; 131/300; 424/616, 717; 426/534; 510/105; 512/17 [IMAGE AVAILABLE]

**ABSTRACT:**

Described are compounds having the generic structure: ##STR1## wherein each of the lines ++++ and the wavy line represent single or carbon-carbon double bonds; wherein each of R.sub.2, R.sub.3 and R.sub.4 represents hydrogen or methyl and R.sub.1 ' represents hydrogen, methyl or methylene; wherein R.sub.5 represents C.sub.1 -C.sub.4 alkyl; with the proviso that when R.sub.2 is CH.sub.3, R.sub.1 ' is hydrogen and ++++ represents a single bond and the wavy line represents a carbon-carbon single bond or a carbon-carbon double bond; and with the further proviso that when R.sub.2 is hydrogen, R.sub.1 ' is methyl and ++++ represents a carbon-carbon single bond and the wavy line represents a carbon-carbon double bond or a carbon-carbon single bond or R.sub.1 ' is methylene (CH.sub.2) and ++++ is a carbon-carbon double bond and the wavy line is a carbon-carbon single bond are disclosed.

In addition, organoleptic uses of such compounds are disclosed for augmenting or enhancing the aroma or taste of consumable materials including foodstuffs, chewing gums, chewing tobaccos, medicinal products, toothpastes, perfumed articles (such as liquid or solid anionic, cationic, nonionic or zwitterionic detergents, fabric softeners, dryer added fabric softener articles and cosmetic compositions), perfumed compositions, smoking tobaccos and smoking tobacco articles. Also disclosed is a process for preparing such compounds using the reaction scheme or parts of said reaction scheme: ##STR2## wherein R.sub.2, R.sub.3, R.sub.4 and R.sub.5 are as defined above.

28. 4,287,133, Sep. 1, 1981, 6-Hydroxy-2,6-dimethylheptanal, organoleptic uses thereof and processes for preparing the same; Mark A. Sprecker, et al., 558/29 [IMAGE AVAILABLE]

**ABSTRACT:**

Described is the compound 6-hydroxy-2,6-dimethylheptanal and methods for preparing foodstuffs, flavoring compositions for foodstuffs, tobacco

**ABSTRACT:**

The present invention relates to chlorocitric acids of the formula ##STR1## and stereoisomers, optical antipodes and pharmaceutically acceptable salts thereof, to methods of preparation thereof, including intermediates involved therein, and to their use as anorectic agents for the treatment of obesity in mammals.

23. 4,319,036, Mar. 9, 1982, Carboalkoxy alkyl norbornanes and process for preparing same; Philip T. Klemarczyk, et al., 560/120; 131/310; 424/616, 717; 426/534; 510/105; 512/17 [IMAGE AVAILABLE]

**ABSTRACT:**

Described are compounds having the generic structure: ##STR1## wherein the dashed line is either a carbon-carbon single bond or a carbon-carbon double bond and each of R.<sub>sub.1</sub>, R.<sub>sub.2</sub>, R.<sub>sub.3</sub> and R.<sub>sub.4</sub> represents hydrogen or methyl with the proviso that one of R.<sub>sub.2</sub> and R.<sub>sub.1</sub> is methyl and the other of R.<sub>sub.1</sub> or R.<sub>sub.2</sub> is hydrogen and R.<sub>sub.3</sub> and R.<sub>sub.4</sub> are not both methyl; and wherein R.<sub>sub.5</sub> represents C.<sub>sub.1</sub>-C.<sub>sub.4</sub> alkyl are disclosed. In addition organoleptic uses of such compounds are disclosed for augmenting or enhancing the aroma or taste of consumable materials including foodstuffs, chewing gums, chewing tobaccos, medicinal products, toothpastes, perfumes, perfumed articles (such as liquid or solid anionic, cationic, nonionic or zwitterionic detergents) fabric softeners, dryer added fabric softener articles, and smoking tobaccos. Also disclosed is a process for preparing such compounds according to the reaction scheme: ##STR2## wherein R' represents C.<sub>sub.1</sub>-C.<sub>sub.3</sub> alkyl; m+n equals 3 with the proviso that m is one or two and n is one or two; and wherein R.<sub>sub.1</sub>, R.<sub>sub.2</sub>, R.<sub>sub.3</sub>, R.<sub>sub.4</sub> and R.<sub>sub.5</sub> are defined as above.

24. 4,312,888, Jan. 26, 1982, Flavoring with carboalkoxy alkyl norbornanes; Philip T. Klemarczyk, et al., 426/3; 131/276; 426/538; 512/17; 560/120 [IMAGE AVAILABLE]

**ABSTRACT:**

Described is a process for augmenting or enhancing the aroma or taste of a foodstuff or chewing gum comprising the step of adding to a foodstuff or chewing gum an aroma augmenting or enhancing quantity of a product comprising a major proportion of compounds defined according to the structure: ##STR1## wherein the dashed line is either a carbon-carbon single bond or a carbon-carbon double bond and each of the R.<sub>sub.1</sub>, R.<sub>sub.2</sub>, R.<sub>sub.3</sub>, R.<sub>sub.4</sub>, R.<sub>sub.6</sub> and R.<sub>sub.7</sub> represents hydrogen or methyl with the proviso that one of R.<sub>sub.1</sub>, R.<sub>sub.2</sub>, R.<sub>sub.6</sub> and R.<sub>sub.7</sub> is methyl and each of the other of R.<sub>sub.1</sub>, R.<sub>sub.2</sub>, R.<sub>sub.6</sub> and R.<sub>sub.7</sub> is hydrogen and R.<sub>sub.3</sub> and R.<sub>sub.4</sub> are not both methyl; wherein R.<sub>sub.5</sub> represents C.<sub>sub.1</sub>-C.<sub>sub.4</sub> produced according to the process of reacting an alkyl acrylate compound with a methyl cyclopentadiene in the presence of or in the absence of catalyst to form a norbornane carboxylate ester-containing mixture and using the resulting mixture for its organoleptic properties or further reacting the mixture with hydrogen to produce a norbornane carboxylate-containing mixture and using that mixture for its organoleptic properties in augmenting or enhancing the aroma or taste of footstuffs or chewing gums.

25. 4,312,885, Jan. 26, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 514/574, 910; 549/318, 548; 562/584 [IMAGE AVAILABLE]

uses thereon and process for preparing same; Philip T. Klemarczyk, et al., 510/105 [IMAGE AVAILABLE]

US PAT NO: 4,357,246 [IMAGE AVAILABLE]

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ABSTRACT:

Described is a process for augmenting or enhancing the aroma or taste of a foodstuff or chewing gum comprising the step of adding to a foodstuff or chewing gum an aroma augmenting or enhancing quantity of a product comprising a major proportion of compounds defined according to the structure: ##STR1##

19. 4,354,039, Oct. 12, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 562/582, 584 [IMAGE AVAILABLE]

US PAT NO: 4,354,039 [IMAGE AVAILABLE]

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ABSTRACT:

The present invention relates to chlorocitric acids of the formula ##STR1## and stereoisomers, optical antipodes and pharmaceutically acceptable salts thereof, to methods of preparation thereof, including intermediates involved therein, and to their use as anorectic agents for the treatment of obesity in mammals.

20. 4,352,758, Oct. 5, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 549/521, 549 [IMAGE AVAILABLE]

US PAT NO: 4,352,758 [IMAGE AVAILABLE]

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ABSTRACT:

The present invention relates to chlorocitric acids of the formula ##STR1## and stereoisomers, optical antipodes and pharmaceutically acceptable salts thereof, to methods of preparation thereof, including intermediates involved therein, and to their use as anorectic agents for the treatment of obesity in mammals.

21. 4,347,858, Sep. 7, 1982, Use of carboalkoxy alkyl norbornanes for augmenting or enhancing the aroma or taste of a smoking tobacco composition or at least a portion of a smoking tobacco article; Philip T. Klemarczyk, et al., 131/276 [IMAGE AVAILABLE]

US PAT NO: 4,347,858 [IMAGE AVAILABLE]

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ABSTRACT:

Described is a process for augmenting or enhancing the aroma or taste of a smoking tobacco composition or at least a portion of a smoking tobacco article comprising the step of intimately admixing with a smoking tobacco composition or at least a portion of a smoking tobacco article, an aroma or taste augmenting or enhancing quantity of at least one compound defined according to the generic structure: ##STR1## wherein the dashed line represents a carbon-carbon single bond or a carbon-carbon double bond; R.<sub>sub.1</sub>', R.<sub>sub.2</sub>', R.<sub>sub.3</sub>', R.<sub>sub.4</sub>', R.<sub>sub.6</sub>' and R.<sub>sub.7</sub>' are each selected from the group consisting of hydrogen and methyl and R.<sub>sub.5</sub>' is C.<sub>sub.1</sub>-C.<sub>sub.4</sub> alkyl with the provisos that;

1. one of R.<sub>sub.1</sub>', R.<sub>sub.2</sub>', R.<sub>sub.6</sub>' and R.<sub>sub.7</sub>' is methyl and the other of R.<sub>sub.1</sub>', R.<sub>sub.2</sub>', R.<sub>sub.6</sub>' and R.<sub>sub.7</sub>' represents hydrogen;
2. R.<sub>sub.3</sub>' and R.<sub>sub.4</sub>' are not both methyl;
3. when the dashed line is a carbon-carbon double bond, R.<sub>sub.1</sub>', R.<sub>sub.3</sub>' and R.<sub>sub.4</sub>' are not all hydrogen when R.<sub>sub.2</sub>' is methyl.

22. 4,340,754, Jul. 20, 1982, Process for making chlorocitric acid; Robert W. Guthrie, et al., 562/584, 582 [IMAGE AVAILABLE]

**ABSTRACT:**

The present invention relates to chlorocitric acids of the formula ##STR1## and stereoisomers, optical antipodes and pharmaceutically acceptable salts thereof, to methods of preparation thereof, including intermediates involved therein, and to their use as anorectic agents for the treatment of obesity in mammals.

15. 4,374,054, Feb. 15, 1983, Use in perfumery of carboalkoxy alkyl norbornanes; Philip T. Klemarczyk, et al., 512/17 [IMAGE AVAILABLE]

US PAT NO: 4,374,054 [IMAGE AVAILABLE]

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**ABSTRACT:**

Use in perfumery are compounds both separately and in admixture having the generic structure: ##STR1## wherein the dashed line is either a carbon-carbon single bond or a carbon-carbon double bond and each of R.sub.1, R.sub.2, R.sub.3, R.sub.4, R.sub.6 and R.sub.7 represents hydrogen or methyl with the proviso that one of R.sub.1, R.sub.2, R.sub.6 and R.sub.7 is methyl and each of the other of R.sub.1, Rhd 2, R.sub.6 and R.sub.7 is hydrogen and R.sub.3 and R.sub.4 are not both methyl; wherein R.sub.5 represents C.sub.1 -C.sub.4 alkyl are disclosed.

16. 4,365,070, Dec. 21, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 549/263, 328 [IMAGE AVAILABLE]

US PAT NO: 4,365,070 [IMAGE AVAILABLE]

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**ABSTRACT:**

The present invention relates to chlorocitric acids of the formula ##STR1## and stereoisomers, optical antipodes and pharmaceutically acceptable salts thereof, to methods of preparation thereof, including intermediates involved therein, and to their use as anorectic agents for the treatment of obesity in mammals.

17. 4,357,253, Nov. 2, 1982, Process of enhancing or augmenting the aroma of detergents using norbornyl esters; Philip T. Klemarczyk, et al., 510/105 [IMAGE AVAILABLE]

US PAT NO: 4,357,253 [IMAGE AVAILABLE]

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**ABSTRACT:**

Described are compounds both separately and in admixture having the generic structure: ##STR1## wherein the dashed line is either a carbon-carbon single bond or a carbon-carbon double bond and each of R.sub.1, R.sub.2, R.sub.3, R.sub.4, R.sub.6 and R.sub.7 represents hydrogen or methyl with the proviso that one of R.sub.1, R.sub.2, R.sub.6 and R.sub.7 is methyl and each of the other of R.sub.1, R.sub.2, R.sub.6 and R.sub.7 is hydrogen and R.sub.3 and R.sub.4 are not both methyl; wherein R.sub.5 represents C.sub.1 -C.sub.4 alkyl are disclosed. In addition organoleptic uses of such compounds are disclosed for augmenting or enhancing the aroma or taste of consumable materials including foodstuffs, chewing gums, chewing tobaccos, medicinal products, toothpastes, perfumes, perfumed articles (such as liquid or solid anionic, cationic, nonionic or zwitterionic detergents) fabric softeners, dryer-added fabric softener articles and smoking tobaccos. Also disclosed is a process for preparing such compounds according to one of the reaction schemes: ##STR2## wherein R' represents C.sub.1 -C.sub.3 alkyl; m+n equals 3 with the proviso that m is one or two and n is one or two; and wherein R.sub.1, R.sub.2, R.sub.3, R.sub.4 and R.sub.5 are defined as above; or ##STR3## wherein R.sub.1 -R.sub.7 are defined as above.

18. 4,357,246, Nov. 2, 1982, Carboalkoxy alkyl norbornanes, organoleptic

[Rh(p-Tolyl BINAP).sub.2 ].sup.+ Y.sup.-  
wherein p-Tolyl BINAP represents 2,2'-bis(di-p-tolylphosphino)-1,1'-binaphthyl, and Y represents ClO.sub.4, PF.sub.6, BF.sub.4 or PCl.sub.6 is described. This complex can be used as a catalyst for various organic syntheses and also for asymmetric syntheses such as an asymmetric isomerization reaction and an asymmetric hydrogenation reaction. Due to its high activity, the complex is very useful as a catalyst.

12. 4,569,771, Feb. 11, 1986, Use of mixture comprising acetic or propionic acid esters of ortho methyl phenyl isopropanol and specified perfume compounds in augmenting or enhancing the aroma of a detergent or fabric softening article; Wilhelmus J. Wiegers, et al., 510/102, 106 [IMAGE AVAILABLE]

US PAT NO: 4,569,771 [IMAGE AVAILABLE]

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**ABSTRACT:**

Described is a process for augmenting or enhancing the aroma of a drier-added fabric softener article or solid or liquid anionic, cationic, nonionic or zwitterionic detergent comprising the step of adding to the fabric softener article or detergent a composition of matter comprising a compound having the structure: ##STR1## wherein R is methyl or ethyl and intimately admixed therewith a compound selected from the group consisting of:

(a) a compound having the structure: ##STR2## (b) 3-methyl-1-phenyl-pentanol-5; and (c) at least one butanoyl cyclohexane derivative defined according to the structure: ##STR3## wherein one or two of the dashed lines represent carbon-carbon double bond and the other of the dashed lines represent carbon-carbon single bonds with the proviso that when the dashed lines represent two carbon-carbon double bonds, said carbon-carbon double bonds are conjugated.

13. 4,524,021, Jun. 18, 1985, Perfumery uses of esters of phenyl alkanols; Wilhelmus J. Wiegers, et al., 512/21 [IMAGE AVAILABLE]

US PAT NO: 4,524,021 [IMAGE AVAILABLE]

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**ABSTRACT:**

Described is a method for producing the compounds described according to the structure: ##STR1## wherein R represents ethyl or methyl as well as optical isomers thereof having the structures: ##STR2## wherein R represents methyl or ethyl, as well as uses thereof in augmenting or enhancing the aroma of perfume compositions, colognes and perfumed articles such as perfumed polymers and solid or liquid anionic, cationic, nonionic or zwitterionic detergents, fabric softener compositions and fabric softener articles. Also described are processes and compositions for use in perfume aroma augmenting, enhancing, modifying and altering compositions and as perfume, cologne and perfumed article aroma imparting compositions of mixtures of the compounds defined according to the structure: ##STR3## wherein R represents methyl or ethyl taken further together with the alcohol having the structure: ##STR4## with one or more butanoyl cyclohexane derivatives and/or 3-methyl-1-phenyl-pentanol-5. The process for preparing the compounds having the structure: ##STR5## wherein R represents methyl or ethyl involves a two-step reaction wherein the compound having the structure ##STR6## is hydrogenated in the presence of acid to form the alcohol having the structure ##STR7## and the resulting alcohol is then esterified.

14. 4,443,619, Apr. 17, 1984, Chlorocitric acids; Robert W. Guthrie, et al., 549/518, 521, 549 [IMAGE AVAILABLE]

US PAT NO: 4,443,619 [IMAGE AVAILABLE]

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compounds or the invention to impart a sandalwood aroma to perfume compositions, colognes and perfumed articles.

8. 4,891,447, Jan. 2, 1990, Sandalwood odorants; Robert Eilerman, et al., 568/496, 448 [IMAGE AVAILABLE]

US PAT NO: 4,891,447 [IMAGE AVAILABLE]

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**ABSTRACT:**

The present invention relates to novel substituted cyclohexanol compounds possessing a sandalwood aroma which are useful as fragrance materials. The invention also provides methods for synthesis thereof through a novel aldehyde intermediate. The compounds of the invention have the formula: ##STR1## wherein A is ##STR2## and wherein R.<sub>sub.1</sub> is methyl or ethyl, R.<sub>sub.2</sub> -R.<sub>sub.7</sub> are independently hydrogen or methyl with the proviso that a maximum of two of the substituents R.<sub>sub.2</sub> -R.<sub>sub.7</sub> are methyl, and R.<sub>sub.8</sub> is hydrogen, lower alkyl (C.<sub>sub.1</sub> to C.<sub>sub.5</sub>) or acyl. The invention also provides fragrance compositions which utilize the compounds of the invention to impart a sandalwood aroma to perfume compositions, colognes and perfumed articles.

9. 4,695,631, Sep. 22, 1987, Process for the preparation of enamines or imines; Seinosuke Otsuka, et al., 544/170, 173, 178; 546/184, 192, 240, 248; 548/400, 574, 575, 578; 564/248, 355, 383, 454, 503, 509 [IMAGE AVAILABLE]

US PAT NO: 4,695,631 [IMAGE AVAILABLE]

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**ABSTRACT:**

A process for the preparation of enamines or imines by isomerization of allylamine derivatives is described. Allylamine derivatives represented by formula (I): ##STR1## are isomerized using as a catalyst a rhodium complex represented by formula (IV):

[Rh(olefin)L]<sup>+</sup> X<sup>-</sup> (IV)  
to form enamines or imines represented by, respectively, formula (II) or formula (III): ##STR2## All of the symbols in the above formulae are as described. These enamines or imines are useful intermediates for the preparation of a number of organic compounds.

10. 4,605,750, Aug. 12, 1986, Rhodium-phosphine complex; Hidenori Kumobayashi, et al., 556/7, 22, 23; 987/13 [IMAGE AVAILABLE]

US PAT NO: 4,605,750 [IMAGE AVAILABLE]

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**ABSTRACT:**

A novel rhodium-phosphine complex represented by the formula (I):

[Rh(BINAP).<sub>2</sub>]<sup>+</sup> Y<sup>-</sup>  
wherein BINAP represents 2,2'-bis(diphenylphosphino)-1,1'-binaphthyl, and Y represents ClO<sub>4</sub>, PF<sub>6</sub>, BF<sub>4</sub>, PCl<sub>6</sub> or B(C<sub>6</sub>H<sub>5</sub>)<sub>3</sub> is described. This complex can be used as a catalyst for various organic syntheses and also for asymmetric syntheses such as an asymmetric isomerization reaction and an asymmetric hydrogenation reaction. Due to its high activity, the complex is very useful as a catalyst.

11. 4,604,474, Aug. 5, 1986, Rhodium-phosphine complex; Hidenori Kumobayashi, et al., 556/7, 16, 22, 23; 987/13 [IMAGE AVAILABLE]

US PAT NO: 4,604,474 [IMAGE AVAILABLE]

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**ABSTRACT:**

A novel rhodium-phosphine complex represented by the formula

4. 5,250,512, Oct. 6, 1993, Propanol derivatives and perfumes containing the same; Tatsuya Ohmoto, et al., 512/22; 568/822 [IMAGE AVAILABLE]

US PAT NO: 5,250,512 [IMAGE AVAILABLE]

L8: 4 of 39

**ABSTRACT:**

An optically active 3-[6(S)-2,2,6-trimethylcyclohexan-1-yl]propanol derivative represented by formula (I): ##STR1## wherein R.sup.1 represents a lower alkyl group, and a perfume containing the same as an active ingredient are disclosed.

5. 5,225,608, Jul. 6, 1993, Sandalwood odorants; Robert Eilerman, et al., 568/667; 512/12, 23; 568/670, 675, 678 [IMAGE AVAILABLE]

US PAT NO: 5,225,608 [IMAGE AVAILABLE]

L8: 5 of 39

**ABSTRACT:**

The present invention relates to novel substituted cyclohexanol compounds possessing a sandalwood aroma which are useful as fragrance materials. The invention also provides methods for synthesis thereof through a novel aldehyde intermediate. The compounds of the invention have the formula: ##STR1## wherein A is ##STR2## and wherein R.sub.1 is methyl or ethyl, R.sub.2 -R.sub.7 are independently hydrogen or methyl with the proviso that a maximum of two of the substituents R.sub.2 -R.sub.7 are methyl, and R.sub.8 is hydrogen, lower alkyl (C.sub.1 to C.sub.5) or acyl. The invention also provides fragrance compositions which utilize the compounds of the invention to impart a sandalwood aroma to perfume compositions, colognes and perfumed articles.

6. 5,037,802, Aug. 6, 1991, Sandalwood odorants; Robert Eilerman, et al., 512/23, 26, 27; 568/670, 672, 675 [IMAGE AVAILABLE]

US PAT NO: 5,037,802 [IMAGE AVAILABLE]

L8: 6 of 39

**ABSTRACT:**

The present invention relates to novel substituted cyclohexanol compounds possessing a sandalwood aroma which are useful as fragrance materials. The invention also provides methods for synthesis thereof through a novel aldehyde intermediate. The compounds of the invention have the formula: ##STR1## and wherein R.sub.1 is methyl or ethyl, R.sub.2 -R.sub.7 are independently hydrogen or methyl with the proviso that a maximum of two of the substituents R.sub.2 -R.sub.7 are methyl, and R.sub.8 is hydrogen, lower alkyl (C.sub.1 or C.sub.5) or acyl. The invention also provides fragrance compositions which utilize the compounds of the invention to impart a sandalwood aroma to perfume compositions, colognes and perfumed articles.

7. 4,960,946, Oct. 2, 1990, Sandalwood odorants; Robert Eilerman, et al., 568/376; 512/22, 23; 568/377, 650, 670 [IMAGE AVAILABLE]

US PAT NO: 4,960,946 [IMAGE AVAILABLE]

L8: 7 of 39

**ABSTRACT:**

The present invention relates to novel substituted cyclohexanol compounds possessing a sandalwood aroma which are useful as fragrance materials. The invention also provides methods for synthesis thereof through a novel aldehyde intermediate. The compounds of the invention have the formula: ##STR1## wherein A is ##STR2## and wherein R.sub.1 is methyl or ethyl, R.sub.2 -R.sub.7 are independently hydrogen or methyl with the proviso that a maximum of two of the substituents R.sub.2 -R.sub.7 are methyl, and R.sub.8 is hydrogen, lower alkyl (C.sub.1 to C.sub.5) or acyl. The invention also provides fragrance compositions which utilize the

=> d 18 1-39 cit ab

1. 5,747,443, May 5, 1998, Fabric softening compound/composition; Errol Hoffman Wahl, et al., 510/515, 101, 102, 104, 276, 280, 303, 308, 329, 330, 504, 521, 522 [IMAGE AVAILABLE]

US PAT NO: 5,747,443 [IMAGE AVAILABLE]

L8: 1 of 39

**ABSTRACT:**

Fabric softening actives having hydrophobic moieties containing, preferably, ester, or amide, linkages and mixed branched and unsaturated hydrophobic groups provide improved processing and stability as well as surprisingly good softening. Preferred compositions contain mono-ol and diol principal solvents having a ClogP of from about 0.15 to about 0.64, that have the ability to make clear aqueous fabric softener compositions containing relatively high concentrations of the said fabric softener actives having ester linkages in their long, hydrophobic chains. Other solvents may be present. Premixes of the fabric softening actives, the principal solvents, and, optionally, other solvents are useful in the preparation of complete formulations by obviating/limiting the need for heating. Other compositions can be prepared which are solid or dispersions of the said fabric softening actives.

2. 5,696,075, Dec. 9, 1997, Campholinic aldehyde derivatives, process for their preparation and their use as perfuming ingredients; Christian Chapuis, et al., 512/6, 8; 558/432; 564/253; 568/446, 838 [IMAGE AVAILABLE]

US PAT NO: 5,696,075 [IMAGE AVAILABLE]

L8: 2 of 39

**ABSTRACT:**

Described herein are compounds of the formula ##STR1## wherein R represents a hydrogen atom or a methyl radical and X stands for a --CHO, or a --CN group, are useful as perfuming ingredients for preparing perfuming compositions and a variety of perfumed articles, to which they impart sandalwood-type odor notes, together with marine, ozone type odor characters, such that said compositions and articles thus acquire a "transparent" connotation. The aldehydes of formula (I) are also useful as starting products for the preparation of the corresponding fragrant alcohols and nitriles.

3. 5,288,702, Feb. 22, 1994, Ethyl (1R,6S)-2,2,6-trimethylcyclohexanecarboxylate, aroma chemical composition containing the same and process of producing the same; Miharu Ogura, et al., 512/24; 560/1 [IMAGE AVAILABLE]

US PAT NO: 5,288,702 [IMAGE AVAILABLE]

L8: 3 of 39

**ABSTRACT:**

Ethyl (1R,6S)-2,2,6-trimethylcyclohexanecarboxylate represented by formula (1) ##STR1## is disclosed. Also, an aroma chemical composition containing the same and a process of the production of the same are disclosed.

31. 4,242,281, Dec. 30, 1980, Process for preparing 6-hydroxy-2,6-dimethylheptanal and intermediates thereof; Mark A. Sprecker, et al., 568/458, 496 [IMAGE AVAILABLE]
32. 4,188,310, Feb. 12, 1980, Substituted cyclic alcohols, methods of preparing and compositions containing same; Brian J. Willis, et al., 512/23; 560/118; 568/346, 350, 367, 816 [IMAGE AVAILABLE]
33. 4,066,658, Jan. 3, 1978, Resolution of D,L-dehydroproline; Arthur Martin Felix, 548/535, 533 [IMAGE AVAILABLE]
34. 4,052,341, Oct. 4, 1977, 3-Methyl-5-(2,2,3-trimethylcyclopent-3-en-1-yl)pentan-2-ol compound and perfume compositions; Richard E. Naipawer, et al., 512/2, 8; 549/525, 541, 545; 568/345, 379, 838 [IMAGE AVAILABLE]
35. 3,988,349, Oct. 26, 1976, Salts of N-formyl-6-chlorotryptophan and .alpha.-methyl-p-nitrobenzylamine; Clark William Perry, et al., 548/496 [IMAGE AVAILABLE]
36. 3,965,129, Jun. 22, 1976, Optical resolution of organic carboxylic acids; Clark William Perry, et al., 549/549, 313 [IMAGE AVAILABLE]
37. 3,965,121, Jun. 22, 1976, Salts of the .gamma.-lactone of (-)-threo-**hydroxycitric** acid with R(+)-.alpha.-methyl-p-nitrobenzylamine; Clark William Perry, et al., 549/318, 549 [IMAGE AVAILABLE]
38. 3,920,752, Nov. 18, 1975, Novel gamma, delta unsaturated aldehydes; Dietmar Lamparsky, 568/448 [IMAGE AVAILABLE]
39. 3,901,915, Aug. 26, 1975, Optical resolution of organic carboxylic acids; Clark William Perry, et al., 548/498; 549/318, 549 [IMAGE AVAILABLE]

13. 4,524,021, Jun. 18, 1985, Perfumery uses of esters of phenyl alkanols; Wilhelmus J. Wiegers, et al., 512/21 [IMAGE AVAILABLE]
14. 4,443,619, Apr. 17, 1984, Chlorocitric acids; Robert W. Guthrie, et al., 549/518, 521, 549 [IMAGE AVAILABLE]
15. 4,374,054, Feb. 15, 1983, Use in perfumery of carboalkoxy alkyl norbornanes; Philip T. Klemarczyk, et al., 512/17 [IMAGE AVAILABLE]
16. 4,365,070, Dec. 21, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 549/263, 328 [IMAGE AVAILABLE]
17. 4,357,253, Nov. 2, 1982, Process of enhancing or augmenting the aroma of detergents using norbornyl esters; Philip T. Klemarczyk, et al., 510/105 [IMAGE AVAILABLE]
18. 4,357,246, Nov. 2, 1982, Carboalkoxy alkyl norbornanes, organoleptic uses thereof and process for preparing same; Philip T. Klemarczyk, et al., 510/105 [IMAGE AVAILABLE]
19. 4,354,039, Oct. 12, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 562/582, 584 [IMAGE AVAILABLE]
20. 4,352,758, Oct. 5, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 549/521, 549 [IMAGE AVAILABLE]
21. 4,347,858, Sep. 7, 1982, Use of carboalkoxy alkyl norbornanes for augmenting or enhancing the aroma or taste of a smoking tobacco composition or at least a portion of a smoking tobacco article; Philip T. Klemarczyk, et al., 131/276 [IMAGE AVAILABLE]
22. 4,340,754, Jul. 20, 1982, Process for making chlorocitric acid; Robert W. Guthrie, et al., 562/584, 582 [IMAGE AVAILABLE]
23. 4,319,036, Mar. 9, 1982, Carboalkoxy alkyl norbornanes and process for preparing same; Philip T. Klemarczyk, et al., 560/120; 131/310; 424/616, 717; 426/534; 510/105; 512/17 [IMAGE AVAILABLE]
24. 4,312,888, Jan. 26, 1982, Flavoring with carboalkoxy alkyl norbornanes; Philip T. Klemarczyk, et al., 426/3; 131/276; 426/538; 512/17; 560/120 [IMAGE AVAILABLE]
25. 4,312,885, Jan. 26, 1982, Chlorocitric acids; Robert W. Guthrie, et al., 514/574, 910; 549/318, 548; 562/584 [IMAGE AVAILABLE]
26. 4,311,617, Jan. 19, 1982, Perfumery compositions; Hifzur R. Ansari, et al., 512/27, 25, 26; 568/496, 678 [IMAGE AVAILABLE]
27. 4,310,681, Jan. 12, 1982, Carboalkoxy alkyl norbornane derivatives and process for preparing same; Philip T. Klemarczyk, et al., 560/120; 131/300; 424/616, 717; 426/534; 510/105; 512/17 [IMAGE AVAILABLE]
28. 4,287,133, Sep. 1, 1981, 6-Hydroxy-2,6-dimethylheptanal, organoleptic uses thereof and processes for preparing the same; Mark A. Sprecker, et al., 558/29 [IMAGE AVAILABLE]
29. 4,281,177, Jul. 28, 1981, 6-Hydroxy-2,6-dimethylheptanal, organoleptic uses thereof and processes for preparing the same; Mark A. Sprecker, et al., 562/108; 568/27, 458, 496 [IMAGE AVAILABLE]
30. 4,258,727, Mar. 31, 1981, Use for augmenting or enhancing the flavor or aroma of smoking tobacco of 6-hydroxy-2,6-dimethyl-heptanal; Mark A.

1. 5,783,603, Jul. 21, 1998, Potassium **hydroxycitrate** for the suppression of appetite and induction of weight loss; Muhammed Majeed, et al., 514/574, 909 [IMAGE AVAILABLE]
2. 4,738,951, Apr. 19, 1988, Perfume composition; Takeshi Yamamoto, et al., 512/20 [IMAGE AVAILABLE]
3. 4,720,354, Jan. 19, 1988, Aroma composition; Yoshinori Asakawa, 512/15; 131/275; 426/538 [IMAGE AVAILABLE]
4. 4,659,509, Apr. 21, 1987, Aroma composition; Yoshinori Asakawa, 512/11, 5, 19; 549/560; 568/819 [IMAGE AVAILABLE]
5. 4,521,331, Jun. 4, 1985, Method of imparting a pleasant odor; Jacques Martel, et al., 424/76.4, 49, 52, 53, 65, 69; 510/102; 512/6, 8, 10, 11, 17, 21 [IMAGE AVAILABLE]
6. 4,431,576, Feb. 14, 1984, Perfumant cyclopropane-carboxylic acid derivatives; Jacques Martel, et al., 512/6; 424/47, 49, 69, 76.4; 510/102; 512/8, 11, 21, 23; 549/66, 323; 558/434; 560/124 [IMAGE AVAILABLE]
7. 4,406,829, Sep. 27, 1983, Novel cyclopropane carboxylate esters; Jacques Martel, et al., 512/8; 560/118 [IMAGE AVAILABLE]

acetate mixture to obtain 1.28 g of (1R,cis)[2,2-dimethyl-3-(1Z-propenyl)-cyclopropyl-1-methyl]formate with a specific rotation [alpha].sub.D.su.20 = +63.5.degree..+-1.5.degree. (c=1% in benzene).

6. 4,431,576, Feb. 14, 1984, Perfumant cyclopropane-carboxylic acid derivatives; Jacques Martel, et al., 512/6; 424/47, 49, 69, 76.4; 510/102; 512/8, 11, 21, 23; 549/66, 323; 558/434; 560/124 [IMAGE AVAILABLE]

US PAT NO: 4,431,576 [IMAGE AVAILABLE]

L6: 6 of 7

**ABSTRACT:**

A compound in all its possible isomeric forms and mixtures thereof of the formula ##STR1## wherein R is selected from the group consisting of (a) alkyl of 1 to 12 carbon atoms optionally substituted with cycloalkyl or cycloalkenyl of 3 to 6 carbon atoms or a hydrocarbon chain of 2 to 8 carbon atoms optionally interrupted by an oxygen or ketone, (b) alkenyl and alkynyl of 3 to 8 carbon atoms, (c) cycloalkyl of 3 to 12 carbon atoms optionally containing at least one double bond and substituted with at least one alkyl and (d) aralkyl of 7 to 12 carbon atoms optionally substituted with at least one member of the group consisting of alkyl of 1 to 4 carbon atoms, alkoxy of 1 to 4 carbon atoms, halogen and --CF<sub>3</sub> and R.<sub>1</sub> and R.<sub>2</sub> are individually selected from the group consisting of hydrogen, --CHO, --COALK.<sub>1</sub>, --COOALK.<sub>2</sub> and --CN, at least one being hydrogen, Alk.<sub>1</sub> and Alk.<sub>2</sub> are alkyl of 1 to 8 carbon atoms and R.<sub>1</sub> and R.<sub>2</sub> taken together with the carbon atom to which they are attached form the group ##STR2## and X is selected from the group consisting of sulfur, oxygen and imino joined to the 1-carbon atom with a double bond with the proviso that the double bond has the E geometry when R.<sub>1</sub> or R.<sub>2</sub> are --CHO, --COALK.<sub>1</sub>, --COOALK.<sub>2</sub> or ##STR3## and their preparation and odorant compositions

Using . . . was chromatographed over silica gel. Elution with a 9-1 petroleum ether (b.p.=40.degree.-70.degree.)-ether mixture yielded 1.8 g of (1R,cis)[2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl](R,S).alpha.-methylbutyrate with a specific rotation of [.alpha.].sub.D.sup.20 =+14.5.degree..+-1.degree. (c=1% in benzene).

DETDESC:

DETD(10)

Using . . . chromatographed over silica gel. Elution with a 9-1 petroleum ether (b.p.=40.degree.-70.degree. C.)-ether mixture yielded 1.6 g of (1S,trans)[2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl]3-methyl-butyrat with a specific rotation of [.alpha.].sub.D.sup.20 =-11.5.degree..+-1.degree. (c=1% in benzene).

DETDESC:

DETD(13)

Using . . . ethyl acetate and the organic phase was dried and evaporated to dryness to obtain 4.8 g of (1R,trans)[2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl]3-methyl-butyrat with a specific rotation of [.alpha.].sub.D.sup.20 =+10.degree..+-1.5.degree. (c=0.85% in benzene).

DETDESC:

DETD(27)

A . . . over silica gel and was eluted with a 9-1ethylene chloride-ethyl acetate mixture to obtain 1.97 g of (1R,cis)[2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl]nicotinate with a specific rotation of [.alpha.].sub.D.sup.20 =+46.degree..+-1.5.degree. (c=1% in benzene).

DETDESC:

DETD(30)

Using . . . silica gel and eluted with a 95-5 petroleum ether (b.p.=40.degree.-70.degree. C.)-ether mixture to obtain 3.17 g of (1R,cis)2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl)cyclopentylpropionate with a specific rotation of [.alpha.].sub.D.sup.20 =+31.5.degree..+-1.degree. (c=1.2% in benzene).

DETDESC:

DETD(33)

Using . . . residue which was chromatographed over silica gel. Elution with a 9-1cyclohexane-ethyl acetate mixture yielded 2.2 g of (1R,cis)[2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl]3-thienyloxy-acetate with a specific rotation of [.alpha.].sub.D.sup.20 =+29.5.degree..+-1.5.degree. (c=0.85% in benzene).

DETDESC:

DETD(68)

A . . . over silica gel and was eluted with a 95-5 cyclohexane-ethyl

MethyI ionone	5
Iris oil	2
Eugenol	4
Rose base	7
Jasmin base	8
<b>Hydroxycitronellol</b>	
	5
Patchouli oil	5
Heliotropine	2
Amber synthetic	3
Musk synthetic	3
Civet tink	2
Sandalwood oil	2
Vetiver.	.

5. 4,521,331, Jun. 4, 1985, Method of imparting a pleasant odor; Jacques Martel, et al., 424/76.4, 49, 52, 53, 65, 69; 510/102; 512/6, 8, 10, 11, 17, 21 [IMAGE AVAILABLE]

US PAT NO: 4,521,331 [IMAGE AVAILABLE]

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#### ABSTRACT:

All possible isomeric forms and mixtures thereof of a compound of the formula ##STR1## wherein R.<sub>sub.1</sub> is selected from the group consisting of alkyl of 1 to 8 carbon atoms and alkenyl of 2 to 8 carbon atoms and R is selected from the group consisting of (a) hydrogen, (b) alkyl of 1 to 12 carbon atoms and alkenyl and alkynyl of 2 to 12 carbon atoms optionally substituted with cyano, saturated or unsaturated cycloalkyl or bicycloalkyl of 3 to 12 carbon atoms also optionally substituted, and optionally interrupted by an oxygen atom or containing a keto group, (c) cycloalkyl of 3 to 12 carbon atoms optionally having at least one double bond and at least one alkyl substituent of 1 to 4 carbon atoms, (d) aryl, arylalkyl, aralkenyl and aralkynyl of 6 to 20 carbon atoms optionally substituted on the aryl ring and the alkyl, alkenyl or alkynyl being optionally interrupted with an oxygen or containing a ketone group and (e) heteroaryl, heteroaralkyl, heteroaralkenyl and heteroaralkynyl optionally substituted on the heteroaryl ring and the alkyl, alkenyl and alkynyl being optionally interrupted with an oxygen atom or having a keto group with the proviso that R is not methyl when R.<sub>sub.1</sub> is 2-methyl-1-propenyl, useful as perfume agents.

#### SUMMARY:

BSUM(27)

When . . . essence, jasmin or mandarin orange essence or may be synthetic products such as aldehydes commonly used in perfumery such as **hydroxycitronella**, ketones such as .alpha.-ionone, phenolic compounds such as eugenol, alcohols such as geraniol or lactones such as coumarine.

#### DETDESC:

DETD(4)

2 . . . and eluted with a 9-1 petroleum ether (b.p.=40.degree. to 70.degree.)-ether mixture to obtain 1.2 g of (1R,cis)[2,2-dimethyl-3-(2-methyl-1-propenyl)-cyclopropyl-1-methyl]trans crotonate with a **specific rotation** of [.alpha.].<sub>sub.D.sup.20</sub> =+38.5.degree..+- .1.5.degree. (c=1% in benzene).

#### DETDESC:

DETD(7)

*09/083/22*  
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L23: 1 of 7

TITLE: ANTIOXIDANT, ACTIVE HYDROGEN ELIMINATOR AND THEIR APPLICATION

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain an antioxidant which inhibits oxidation of e.g. fat and oil and an active oxygen eliminator having a possible effect of preventing various disturbances of a living body by using a benzophenone derivative.

SOLUTION: The benzophenone derivative means a compound derived by replacing a hydrogen atom or hydrogen atoms of the benzene nuclei of a benzophenone skeleton by e.g. hydroxyls, carbonyls or hydrocarbon chains such as isoprenyl groups. It may be water-soluble or fat-soluble and may be one prepared by chemical synthesis or one obtained by extracting the contained benzophenone derivative from a plant. Examples of the former include polyisoprenylated benzophenone derivatives such as garcinol and isogarcinol. Examples of plants containing the latter benzophenone derivatives include plants belonging to the family Hypericaceae (e.g. *Garcinia cambogia*).

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L23: 2 of 7

TITLE: NUTRITIONAL REGULATING FOOD IN BAKED CONFECTIONERY

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a nutritional regulating food having more remarkable effects on weight reduction than those of a baked confectionery containing only vitamins and minerals by adding a powder of a *Garcinia cambogia* extract and various vitamins, minerals, etc., to a baked confectionery.

SOLUTION: This nutritional regulating food is obtained by adding a powder of a *Garcinia cambogia* extract having about 50% content of hydroxycitric acid(HCA) and various vitamins and minerals to a wheat flour, oils and fats, a sweetener, a perfume, etc., uniformly stirring the resultant mixture, placing the uniform mixture in a mold and baking the mixture. The resultant food in the baked confectionery has more remarkable effects on weight reduction than those of a food containing only the vitamins and minerals. The amount of the added powder of the *Garcinia cambogia* extract is preferably within the range of about 0.2-6.0g based on 80g weight of the whole when the HCA content is about 50%.

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L23: 3 of 7

TITLE: DIET ASSISTING FOOD

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a diet assisting food having excellent weight-reducing effect and acceptable taste and useful for the amelioration of obesity by treating ethanol with a magnetic field, adding the treated ethanol to a raw material composed mainly of **Garcinia cambogia** extract, etc., and granulating the mixture in wet state.

SOLUTION: Ethanol subjected to a magnetic field treatment is added to a raw material containing (A) **Garcinia cambogia** extract and **Gymnema sylvestre** extract (at a ratio of preferably 1/5 to 5/1) as main components and (B) preferably 6-30wt.% each (based on the sum of the main components) of salmon soft roe extract, RNA concentrated yeast extract and parsley powder as subsidiary components and the obtained mixture is granulated in wet state.

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L23: 4 of 7

TITLE: ULTRAVIOLET LIGHT ABSORBER AND SKIN PREPARATION FOR EXTERNAL USE OBTAINED BY BLENDING THE SAME

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain an ultraviolet light absorber having high safety and light stability and excellent ultraviolet absorbing effect.

SOLUTION: This ultraviolet light absorber contains a fraction containing **Garcinia mangostana** Linn., etc., belonging to the genus **Garcinia** of guttiferous plant as an active ingredient. The fraction containing **Garcinia mangostana** Linn. is obtained by extracting pericarp of the plant with a solvent (e.g. isopropyl alcohol). The fraction has 319 maximum absorbing wavelength and exhibits excellent ultraviolet absorbing property in UV-A and UV-B areas. This skin preparation for external use having ultraviolet absorbing ability can be prepared in liquid, lotion, cream or stick by including 0.005-30wt.% extract of the plant based on dried material. **Garcinia atroviridis** Griff. ex T. Anders., **Garcinia bancana** Miq., **Garcinia cambogia** Desr., **Garcinia dioica** Blume., **Garcinia globulosa** Rindl., **Garcinia griffithii** T. Anders., is also used in addition to **Garcinia mangostana** Linn., as the plant.

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JP409051779A

L23: 5 of 7

TITLE: HEALTH FOOD

ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a health food capable of expecting a slenderizing effect more excellently than a usual health food, containing only **Garcinia cambogia** essence as an active component.

SOLUTION: This health food is produced by adding borage oil and red pepper powder to **Garcinia cambogia** essence. Synthesis of fat is inhibited and glycogen is produced by the action of HCA (hydroxycitric acid) abundantly contained in the **Garcinia cambogia** essence, and on the other hand, &gamma;-linolenic acid in the essence stimulates brown fat calls to generate heat, and further, body temperature is raised by the red pepper powder, then consumed calorie is increased, thus metabolism of glycogen generated by the **Garcinia cambogia** essence is promoted and a synergistic slenderizing effect is obtained, as a

result.

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L23: 6 of 7

TITLE: Extracts of Garcinia and Hibiscus have cosmetic and dermatological use

ABSTRACT:

Cosmetic and dermatological compsns. with anti-cellulitic activity, which favour lipolysis and/or regulate lipogenesis and cutaneous cellular renewal, and protect against hair loss, contain an extract of **Garcinia cambogia** or **Hibiscus cannabinus vulgaris L.**

US PAT NO: OCR DATA 3,767,678 [IMAGE AVAILABLE] L23: 7 of 7  
TITLE: TITLE MAY BE IN MISC FIELD

ABSTRACT:

ABSTRACT OF THE DISCLOSURE Ester and amide derivatives of threo-hydroxycitric acid  $\gamma$ -lactone inhibit fatty acid synthesis in biological systems and are useful in the treatment of obesity and in recting conditions of lipid abnormalities.

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1. 5,747,443, May 5, 1998, Fabric softening compound/composition; Errol Hoffman Wahl, et al., 510/515, 101, 102, 104, 276, 280, 303, 308, 329, 330, 504, 521, 522 [IMAGE AVAILABLE]

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- ✓ 1. 5,747,443, May 5, 1998, Fabric softening compound/composition; Errol Hoffman Wahl, et al., 510/515, 101, 102, 104, 276, 280, 303, 308, 329, 330, 504, 521, 522 [IMAGE AVAILABLE]
- ✓ 2. 5,696,075, Dec. 9, 1997, Campholinic aldehyde derivatives, process for their preparation and their use as perfuming ingredients; Christian Chapuis, et al., 512/6, 8; 558/432; 564/253; 568/446, 838 [IMAGE AVAILABLE]
3. 5,288,702, Feb. 22, 1994, Ethyl (1R,6S)-2,2,6-trimethylcyclohexanecarboxylate, aroma chemical composition containing the same and process of producing the same; Miharu Ogura, et al., 512/24; 560/1 [IMAGE AVAILABLE]
4. 5,250,512, Oct. 5, 1993, Propanol derivatives and perfumes containing the same; Tatsuya Ohmoto, et al., 512/22; 568/822 [IMAGE AVAILABLE]
5. 5,225,608, Jul. 6, 1993, Sandalwood odorants; Robert Eilerman, et al., 568/667; 512/12, 23; 568/670, 675, 678 [IMAGE AVAILABLE]
6. 5,037,802, Aug. 6, 1991, Sandalwood odorants; Robert Eilerman, et al., 512/23, 26, 27; 568/670, 672, 675 [IMAGE AVAILABLE]
7. 4,960,946, Oct. 2, 1990, Sandalwood odorants; Robert Eilerman, et al., 568/376; 512/22, 23; 568/377, 650, 670 [IMAGE AVAILABLE]
- ✓ 8. 4,891,447, Jan. 2, 1990, Sandalwood odorants; Robert Eilerman, et al., 568/496, 448 [IMAGE AVAILABLE]
9. 4,695,631, Sep. 22, 1987, Process for the preparation of enamines or imines; Seinosuke Otsuka, et al., 544/170, 173, 178; 546/184, 192, 240, 248; 548/400, 574, 575, 578; 564/248, 355, 383, 454, 503, 509 [IMAGE AVAILABLE]
10. 4,605,750, Aug. 12, 1986, Rhodium-phosphine complex; Hidenori Kumobayashi, et al., 556/7, 22, 23; 987/13 [IMAGE AVAILABLE]
11. 4,604,474, Aug. 5, 1986, Rhodium-phosphine complex; Hidenori Kumobayashi, et al., 556/7, 16, 22, 23; 987/13 [IMAGE AVAILABLE]
12. 4,569,771, Feb. 11, 1986, Use of mixture comprising acetric or propionic acid esters of ortho methyl phenyl isopropanol and specified perfume compounds in augmenting or enhancing the aroma of a detergent or fabric softening article; Wilhelmus J. Wiegers, et al., 510/102, 106 [IMAGE AVAILABLE]

8/28/22  
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7. 4,406,829, Sep. 27, 1983, Novel cyclopropane carboxylate esters;  
Jacques Martel, et al., 512/8; 560/118 [IMAGE AVAILABLE]

US PAT NO: 4,406,829 [IMAGE AVAILABLE]

L6: 7 of 7

ABSTRACT:

Novel esters of all possible isomers and mixtures thereof of compounds of the formula ##STR1## wherein n is a number of 2,3 or 4 and R is selected from the group consisting of (a) alkyl of 1 to 12 carbon atoms optionally substituted with a member of the group consisting of cycloalkyl of 3 to 6 carbon atoms and a hydrocarbon chain of 2 to 8 carbon atoms optionally interrupted by an oxygen atom or a ketone group, (b) alkenyl and alkynyl of 3 to 8 carbon atoms, (c) cycloalkyl of 3 to 12 carbon atoms optionally containing at least one double bond and optionally substituted with at least one alkyl of 1 to 5 carbon atoms and (d) aralkyl of 7 to 12 carbon atoms optionally substituted with at least one member of the group consisting of alkyl of 1 to 4 carbon atoms, alkoxy of 1 to 4 carbon atoms, halogen and --CF<sub>3</sub> having perfume and insecticidal properties.

SUMMARY:

BSUM(22)

When . . . essence, jasmin or mandarin orange essence or may be synthetic products such as aldehydes commonly used in perfumery such as **hydroxy-citronella**, ketones such as **.alpha.-ionone**, phenolic compounds such as eugenol, alcohols such as geraniol or lactones such as coumarine.

DETDESC:

DETD(3)

A . . . obtain 7.8 g of isopropyl (1R,trans) 2,2-dimethyl-3-cyclobutylidenemethyl-cyclopropane-1-carboxylate with a boiling point of 64.degree.-66.degree. C. at 0.1 mm Hg and a **specific rotation** of [.alpha.]<sub>D</sub><sup>20</sup> =-24.5.degree. (c=2% in chloroform).

DETDESC:

DETD(6)

8 . . . obtain 5 g of isopropyl (1R,cis) 2,2-dimethyl-3-cyclobutylidenemethyl-cyclopropane-1-carboxylate with a boiling point of 66.degree..about.68.degree. C. at 0.1 mm Hg and a **specific rotation** of [.alpha.]<sub>D</sub><sup>20</sup> =+74.5.degree. (c=1% in chloroform).

DETDESC:

DETD(9)

100 . . . eluted with a 9-1 petroleum ether (b.p.=60.degree.-80.degree. C.)-isopropyl ether mixture to obtain 17 g of methyl

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2. 4,738,951, Apr. 19, 1988, Perfume composition; Takeshi Yamamoto, et al., 512/20 [IMAGE AVAILABLE]

US PAT NO: 4,738,951 [IMAGE AVAILABLE]

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**ABSTRACT:**

A perfume composition is disclosed, containing methyl 1-3,7-dimethyl-7-hydroxyoctylideneanthranilate of the following formula (I): ##STR1## The perfume composition of the invention is less allergenic and safer than those containing the corresponding d- or dl-form. Further, the perfume composition has a less irritating odor and imparts a clean and green note.

**SUMMARY:**

BSUM(4)

Methyl 3,7-dimethyl-7-hydroxyoctylideneanthranilate is a Schiff base compound, prepared from **hydroxycitronellal** (3,7-dimethyl-7-hydroxyoctanal) and methyl anthranilate. **Hydroxycitronellal** used as a starting material for the production of this compound is also a synthetic perfume and has chiefly been available in the form of either **d-hydroxycitronellal** that is obtained by hydrolysis of a sulfurous acid adduct of d-citronellal derived from citronella oil, or **dl-hydroxycitronellal** that is prepared from dl-citronellal which is prepared from myrcene. In other words, an l-form of **hydroxycitronellal** has seldom been used (see O. Okuda, Koryo Kagaku Soran (Review of Perfume Chemistry), p. 753, Hirokawa Publishing Company, 1968).

**SUMMARY:**

BSUM(6)

With . . . need to create perfumes that present much less hazard to human health. In this connection, it has been reported that **hydroxycitronellal** which is not only a synthetic perfume per se but also used as a starting material for the production of. . .

**SUMMARY:**

BSUM(7)

The . . . these Schiff bases used as perfumes. During the course of these studies, the present inventors established a method of synthesizing **l-hydroxycitronellal** (see Japanese Patent Application (OPI) No. 4748/1983) with the attendant finding that the l-form of **hydroxycitronellal** has a very low level of allergenicity as compared with its d-form. (The term "OPI" as used herein refers to. . .

**SUMMARY:**

Page 1

In . . . and which yet provides a note of fragrance that is not much different from those of the conventional isomers of **hydroxycitronellal**. As a result, the present inventors found that only methyl 3,7-dimethyl-7-hydroxyoctylideneanthranilate is acceptable because of its balanced properties, i.e., very low sensitizing potential, note for fragrance that is not much different from those of other isomeric forms of **hydroxycitronellal**, less irritating odor, cleanliness, and an added green note. The present invention has been accomplished on the basis of this. . .

DETDESC:

DETD(4)

(2) . . . 106, 5208 (1984), N,N-diethyl-7-hydroxygeranylamine ((E)-N,N-diethyl-7-hydroxy-3,7-dimethyl-2-octenylamine) or N,N-diethyl-7-hydroxycinernylamine ((Z)-N,N-diethyl-7-hydroxy-3,7-dimethyl-2-octenylamine) is asymmetrically isomerized with [Rh((+)-BINAP)(NBD)]+ClO<sub>4</sub>.sub.4.spsb.- or [Rh((-)-BINAP)(NBD)]+ClO<sub>4</sub>.sub.4.spsb.- to form an enamine of (-)-7-**hydroxycitronellal** which is then hydrolyzed, wherein NBD means norbornadiene, and BINAP means 2,2'-bis(diphenylphosphono)-1,1'-binaphthyl.

DETDESC:

DETD(5)

By employing either one of these methods, (-)-7-**hydroxycitronellal** having a boiling point of from 85.degree. to 90.degree. C./2 mmHg and a **specific rotation** [.alpha.].sub.D.sup.23 of -12.degree. (C=20, benzene) is obtained. When this substance is reacted with methyl anthranilate by a known method, the. . .

DETDESC:

DETD(11)

172 g (1 mole) of 1-**hydroxycitronellal** (prepared in accordance with Example 3 of Japanese Patent Application (OPI) No. 4748/1983) and 151 g (1 mole) of methyl. . .

DETDESC:

DETD(12)

As . . . as a yellow viscous liquid having a specific gravity d.<sub>20</sub>.<sup>20</sup> of 1.0575, a refractive index n.<sub>D</sub>.<sup>20</sup> of 1.5312, and a **specific rotation** [.alpha.].sub.D.sup.20 of -6.73.degree.. The IR spectrum of this substance is shown in FIG. 1. The fragrance of this substance had. . .

DETDESC:

DETD(53)

15

methyl 1-3,7-dimethyl-7-  
18  
hydroxyoctylideneanthranilate  
phenylethyl alcohol 14  
neroli oil 1.5

petigrain citronella 4  
bergamot 2  
linalyl acetate 8  
**dl-hydroxycitronellal**  
4  
orange flower absolute  
1  
indole (10%) 1  
geranyl acetate 2  
petigrain Paraguay 0.5

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4. 4,659,509, Apr. 21, 1987, Aroma composition; Yoshinori Asakawa,  
512/11, 5, 19; 549/560; 568/819 [IMAGE AVAILABLE]

US PAT NO: 4,659,509 [IMAGE AVAILABLE]

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**ABSTRACT:**

There is provided an aroma composition containing a sesquiterpene alcohol having the hexahydroindane skeleton. Such sesquiterpene alcohol has a fantastic aroma reminiscent of a variety of odors based on the woody note and powdery green note and furthermore has high diffusivity and retentivity and accords well with a number of perfume and fragrance materials and flavor materials.

**DETDESC:**

DETD(3)

A . . . The instrumental analysis data for this oil are given below.  
These instrumental analysis data identified said oil as  
3,7-dimethyl-2-(2-methyl-1-propenyl)hexahydroindan-2-ol. ##STR3##  
**Specific rotation** [.alpha.].sub.D : +19.7 (c 1.1, CHCl<sub>3</sub>.sub.3)  
Molecular weight: 222 [M.sup.+ ]

**DETDESC:**

DETD(17)

. . .

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Bergamot oil 20  
Oak moss oil 25  
Geranium oil 5  
Violet leaf oil 1  
Benzyl acetate 5  
Linalool 5  
**Hydroxycitronellal**  
5  
Eugenol 3  
Sandalwood oil 2  
Vetiver oil 3  
Methyl ionone 2  
Rose absolute 3  
Jasmin absolute 2  
Labdanum. . .

**DETDESC:**

DETD(33)

. . .

C-11 10%

3  
.alpha.-Ionone 7

(1R,trans) 2,2-dimethyl-3-cyclobutylidenemethyl-cyclopropane-1-carboxylate with a **specific rotation** of [.alpha.]<sub>D.sup.20</sub> = -9.5.degree. (c=1% in chloroform).

DETDESC:

DETD(12)

A . . . obtain 23 g of methyl (1R,cis) 2,2-dimethyl-3-cyclobutylidenemethyl-cyclopropane-1-carboxylate with a boiling point of 63.degree.-64.degree. C. at 0.1 mm Hg and a **specific rotation** of [.alpha.]<sub>D.sup.20</sub> = +119.degree. (c=1.5% in chloroform).

DETDESC:

DETD(15)

3.5 . . . gel. Elution with a 98-2 petroleum ether (b.p.=40.degree.-70.degree. C.)--isopropyl ether mixture yielded 1.3 g of methyl (1R,cis) 2,2-dimethyl-3-cyclopentylidenemethyl-cyclopropane-1-carboxylate with a **specific rotation** of [.alpha.]<sub>D.sup.20</sub> = +93.degree..+-2.degree. (c=1% in ethanol).

DETDESC:

DETD(18)

7.5 . . . with a Rf=0.45 was evaporated to dryness under reduced pressure to obtain 1.4 g of ethyl (1R,cis) 2,2-dimethyl-3-cyclopentylidenemethyl-cyclopropane-1-carboxylate with a **specific rotation** of [.alpha.]<sub>D.sup.20</sub> = +76.degree..+-2.degree. (c=1% in ethanol).

DETDESC:

DETD(21)

5 . . . were chromatographed over silica gel. Elution with a 7-3 cyclohexane-ethyl-acetate mixture yielded 1.9 g of isopropyl (1R,cis) 2,2-dimethyl-3-cyclopentylidenemethyl-cyclopropane-1-carboxylate with a **specific rotation** of [.alpha.]<sub>D.sup.20</sub> = +50.5.degree..+-1.5.degree. (c=1.5% in benzene) and +61.degree..+-2.degree. (c=0.8% in ethanol).

DETDESC:

DETD(24)

A . . . obtain 8 g of ethyl (1R,trans) 2,2-dimethyl-3-cyclobutylidenemethyl-cyclopropane-1-carboxylate with a boiling point of 78.degree.-79.degree. C. at 0.1 mm Hg and a **specific rotation** of [